

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Tait R Swanson on 01/25/2011 at 2pm.

The application has been amended as follows:

Please amend claims mentioned below (1, 17 and 23) as follows and keep the remaining unaltered:

1. A system for assessing and optimizing crude selection comprising:

a tangible memory;

a database disposed on the memory storing data comprising crude characteristic data related to a plurality of different crudes or crude blends and crude processing data related to crude processing at a plurality of different operational conditions; and

a predictive engine having programmable instructions configured for execution by at least one processor,

wherein the predictive engine is configured to assess similarity of the crude characteristic data and the crude processing data of the plurality of different crudes or crude blends with input crude characteristic data and input crude processing data of the

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respective crude or crude blend to output statistical best matches with the data stored in the database,

wherein the predictive engine is configured to execute at least one predictive performance and/or risk assessment model designed to optimize or improve a refining process based on the statistical best matches.

17. A non-transitory computer readable medium storing a set of instructions configured for execution by at least one processor for performing the steps of:

accessing a database for obtaining data comprising crude characteristic data related to a plurality of different stored crudes or crude blends and crude processing data related to crude processing at a plurality of different operational conditions;

assessing similarity of the crude characteristic data and the crude processing data of the plurality of different crudes or crude blends with input crude characteristic data and input crude processing data of the respective crude or crude blend to output statistical best matches with the data stored in the database; and

executing at least one predictive performance and/or risk assessment model to optimize or improve a refining process for at least one crude or crude blend based on the statistical best matches.

23. A system comprising:

a crude analyzer configured to compare a selected crude type and a selected refinery parameter with historical data comprising crude data related to a plurality of

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crude types and refinery data related to a plurality of refineries, wherein the crude analyzer is configured to identify one or more crude types and one or more refinery parameters in the historical data that are statistically similar to the selected crude type and the selected refinery parameter, respectively; and

a refinery optimizer configured to improve a refining process for the selected crude type and the selected refinery parameter based on the one or more crude types and the one or more refinery parameters identified by the crude analyzer,

wherein the crude analyzer and the refinery optimizer are configured to execute on a processor.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Navneet K. Ahluwalia whose telephone number is 571-272-5636.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alam T. Hosain can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Dated: 1/25/2011

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